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ABSTRACT

A selected bibliography is presented in this last volume of the series. The citations included data from as long ago as 30 years, although the majority are of recent vintage. These publications are concerned with cable television (CATV) and broadband cable systems which offer or propose to offer various teleservices in addition to one-way distribution of present television channels. Topics covered include technical teleservices, system management, system economics, and the legal, social, privacy, and security aspects of the systems. (Author)

OT REPORT 73-13

A SURVEY OF TECHNICAL REQUIREMENTS FOR BROADBAND CABLE TELESERVICES VOLUME 7

OT

U.S. DEPARTMENT OF COMMERCE / Office of Telecommunications

VOLUME 7
A SELECTED BIBLIOGRAPHY

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UNITED STATES DEPARTMENT OF COMMERCE

OFFICE OF TELECOMMUNICATIONS

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FOREWORD

As information transfer becomes more important to all levels of society, a number of new telecommunication services to homes and between institutions will be required. Many of these services may require broadband transmission. The new services may, in part, evolve from those provided by cable television.

This is one of a series of reports resulting from a survey of the CATV industry and related technological industries. The survey identifies some of the important technical factors which need to be considered in order to successfully bring about the transition from the technical state of today's cable television and services to those new teleservices which seem to be possible in the future.

The current and future broadband capabilities of telephone networks are not discussed since they are described in many Bell Laboratory and other telephone company publications. Also, the tremendous load projected for common carrier telephone and data systems in voice and data communication suggests that two-way, interactive, broadband networks, not now in existence, may be required in addition to an expanded telephone network. The many aspects of economic viability, regulation, social demand, and other factors that must be considered before the expectation of

the new teleservices can be fulfilled are not within the scope of these reports. These reports concentrate on technical factors, not because they are most important, but because they have been less considered.

A report about the state-of-the-art and projections of future requirements in a complex technology draws material from a vast number of sources. While many of these are referenced in the text, much information has been obtained in discussions with operators, manufacturers, and consulting engineers in the CATV industry. Members of the National Cable Television Association, particularly, have been most helpful in providing information, discussing various technical problems, and in reviewing these reports.

Because of the substantial amount of material to be discussed it was believed most desirable to present a series of reports. Each individual report pertains to a sub-element of the total system. However, since some technical factors are common to more than one sub-component of the system, a reader of all the reports will recognize a degree of redundancy in the material presented. This is necessary to make each report complete for its own purpose.

The title of the report series is: A Survey of Technical Requirements for Broadband Cable Teleservices. The seven volumes in the series will carry a common report

number: OTR 73-13. The individual reports in the series are sub-titled as:

A Summary of Technical Problems Associated with Broadband Cable Teleservices Development, OT Report No. 73-13, Volume 1.

Subscriber Terminals and Network Interface, OT Report No. 73-13, Volume 2.

Signal Transmission and Delivery Between Head-End and Subscriber Terminals, OT Report No. 73-13, Volume 3.

System Control Facilities: Head-Ends and Central Processors, OT Report No. 73-13, Volume 4.

System Interconnections, OT Report No. 73-13, Volume 5.

The Use of Computers in CATV Two-Way Communication Systems, OT Report No. 73-13, Volume 6.

A Selected Bibliography, OT Report No. 73-13, Volume 7.

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A SURVEY OF TECHNICAL REQUIREMENTS FOR BROADBAND CABLE TELESERVICES

A SELECTED BIBLIOGRAPHY

N. Holmberg, E. Gray, and P. McManamon *

This report presents a selected bibliography of publications concerned with cable television or Community Antenna Television (CATV) and broadband cable systems which offer or have been proposed to offer various services (teleservices) in addition to one-way distribution of present television channels. The bibliography includes publications related to technical teleservices, system management, system economics, and legal, social, privacy and security aspects of the systems.

Key Words: CATV, Cable Television, Broadband Cable Teleservices, Bibliography

1. INTRODUCTION

This report presents a selected bibliography of publications concerned with CATV (either Cable Television or Community Antenna Television) and broadband cable systems which offer or have been proposed to offer various services (teleservices) through a cable one-way or two-way network. The cable television industry continues to experience rapid growth and lately has been the subject of attention in numerous publications. In the course of the Broadband Cable Teleservices survey at the Institute for Telecommunication Sciences, most of this bibliography was developed.

The reader is referred to two existing bibliographies which are incorporated by reference. The publications

The authors are with the Institute for Telecommunication Sciences, Office of Telecommunications, U. S. Department of Commerce, Boulder, Colorado 80302.

listed in this report do not contain any of the references listed by Le Duc or in the Office of Telecommunications Policy bibliography.

Cable Television Bibliography
Staff Research Paper
February 1972 (Revised July 1972)
Executive Office of the President
Office of Telecommunications Policy
Washington D.C. 20504

D. R. Le Duc
A Selective Bibliography on the
Evolution of CATV 1950-1970
Journal of Broadcasting
Vol. XV.
No. 2 (Spring 1971)
pp. 195-234.

For additional information, the reader is referred to the National Cable Television Association, Inc., 918 Sixteenth Street, N.W., Washington D.C. 20006.

The references have been organized into the subject areas listed in the Table of Contents. This organization is only intended to aid in introducing the reader to specific subject areas. Many references discuss subjects listed in numerous subject areas--in these cases a judgement had to be exercised. The rule used was that the reference was included in the subject area most nearly associated with the first topic listed in the reference's title.

Finally, this bibliography is not to be considered comprehensive in any sense. Certainly many references have been missed. Further, the overall subject area is rather large and some undefined boundary lines have been drawn. To cite a specific example, consider the subject of digital image processing and picture coding. A bibliography on this subject is relevant to digital transmission of video in future CATV systems. The bibliography contains over 1000 references. Again, since it is readily available it is incorporated by reference.

Bibliography on Digital Image Processing and
Related Topics
Prepared by the Staff of the
Image Processing Laboratory
Dept. of Electrical Engineering
University of Southern California
USCEE Report 410
February 1972

It is also available from the National Technical Information Service, U.S. Dept. of Commerce, Springfield, Va. 22151, as report AD-745 790.

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This report presents a selected bibliography of publications concerned with cable television or Community Antenna Television (CATV) and broadband cable systems which offer or have been proposed to offer various services (teleservices) in addition to one-way distribution of present television channels. The bibliography includes publications related to technical teleservices, system management system economics, and legal, social, privacy and security aspects of the systems.

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